

SPECIAL
POINTS OF
INTEREST:

- Start up help for area Chemistry Teacher groups
- Electron Configuration Battleship
- Su-Chem-Ku
- Texas Student qualifies for Olympiad

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The ReACT₂ant

VOLUME 18, ISSUE 1

JUNE 2011

President's Message



Greetings ACT₂ members and friends. Welcome to summer!

Let me start by apologizing for the delay in the release of the ReACT₂ant. We've had some issues and rather than dwell on them, we're going to say "Back on track" and move forward.

I know many of our members have some fun vacation plans that revolve around chemistry and others just need time to relax at home with family and avoid grading lab books for a couple of months. Either way, I hope it's all you hope it will be.

This year has been a bit traumatic

for public schools in Texas and the next few will likely be just as challenging. We, as members of ACT₂, will need to make a concerted effort to stay in touch, communicate new ideas, and support each other more now than ever before. Having always been a pretty fabulous group in that regard, I envision us expanding our social network, organizing local, metro area groups (like those in Houston and the DFW area), and increasing attendance at our Biennial Conference which promises to be amazing in 2012.

Please spend a few minutes perusing the stories, games and activities that are in this newsletter; as well as information about CAST, our social network address, and ChemEd 2011. If you

have any suggestions for information or articles you'd like us to include in future issues of the ReACT₂ant please let me know. My email is on the back page. Also, if you'd like to contribute anything to the newsletter, please check in this issue for future publication dates and deadlines for submission.

One last item to mention: We've been trying to get all of the emails correctly entered, but have been getting bounce backs. If possible, please provide us with a non-school email to avoid filtering. Thanks for being a member or friend of ACT₂, and have a wonderful summer, filled with Chemistry!

Electron Configuration Battleship

**From Teresa DeLong—
Conroe ISD**

Purpose: To teach students how to look at an element on the periodic table and instantly determine its electron configuration.

Materials: 1 Manila file folder per student, 2 lami-

nated periodic tables per folder, dryerase or overhead markers (1 per student).

Assembly: Tape the periodic tables to the top and the bottom of the inside of the manila folder, both of them right-side up.

Playing the Game:

- The game is played like traditional battleship in groups of two students. Each student has the manila folder open so that the opponent cannot see either of his/her periodic tables.

- Each player puts a line through the appropriate number of (Battleship pg 3)

89

Ac

ACTinium
(227)

Did you know that ACT₂ owns the Actinium brick outside the chemistry building at UNT?

Su-Chem-Ku

The Su-Chem-Ku below is just like a Su-Do-Ku logic puzzle. The goal is to get 9 different symbols in each 3x3 square, 9 different symbols across each row, and 9 different symbols down each column.

The symbols used, in alphabetical order are for: Actinium, Astatine, Chlorine, Germanium, Iodine, Nitrogen, Oxygen, Sulfur, and Vanadium

				Ge	N			V
	S		O					
Cl				V			Ac	S
At		O						
							Cl	
	N	Cl	At		S	I		
O					Cl			Ac
					Ge		I	
		V			I	O	N	Ge

Clue: The shaded area would describe what all teachers need.

2011 is International Year of Chemistry



<http://iyc2011.acs.org/>

This URL will take you to the American Chemical Society page where you can access links about the International Year of Chemistry suggestions for community outreach activities, resources for teachers

and many other features.

There is an IYC item of the day for each of the 365 we have in 2011 and a virtual journal that is updated monthly with articles, stories, and facts related to the topic of the quarter. The 3rd quarter of 2011 is devoted to materials and the 4th quarter is devoted

to health. In each of the quarters, water is a suggested focus. Check it out!

By the way, did you know that the official announcement of the IYC was made at the Biennial Conference on Chemical Education in 2010 at UNT?

CAST Strand Preliminary Sessions

The following list is a preliminary summary of the sessions being offered by ACT₂ during the strand. There are a few others we are checking on as we go to print. If you have not emailed Rhonda Alexander (Past-President and strand coordinator) with your name and topic, please do so, as it will make it easier for her to work with the schedulers. Rhonda's email is rhondaalex@gmail.com.

Presenter	Title
Criss Bartley	ACT ₂ Presents; Writing Chemical Formulas.
Jonathan Bergmann	ACT ₂ Presents: Mastering the Chaos: The Flipped Classroom and Mastery
Somkid Clarke	ACT ₂ Presents Hands-on Lessons for Abstract Concepts in Chemistry".
Karen Compton	ACT ₂ Presents: "Old" Demos for "New" Teachers
Jamie Flint	ACT ₂ : Manipulatives in Chemistry
Kathleen Holley, Ph. D.	ACT ₂ Presents: A Gentle Introduction to Teaching Chemistry Using Inquiry.
Debbie Koeck and Joyce Kulhanek	ACT ₂ Presents Goldilocks & the 3 Bears and the 3 Little Pigs: A Study in Chemistry and Physics for Elementary Science
Diana Mason	ACT ₂ Presents Lone Star Online Solutions
Amiee Modic	ACT ₂ Presents: "What's Going on During Freezing?" and Other Questions
Stephanie Raney	ACT ₂ Presents: Tips and Tricks for Learning Chemistry
Denise Sanders	ACT ₂ Presents: Engaging Strategies for the Chemistry Classroom – Part 1
Denise Sanders	ACT ₂ Presents: Engaging Strategies for the Chemistry Classroom – Part 2
Claudia Wallace	ACT ₂ Presents Chemistry in a Bottle
Juan M. Ybarra	ACT ₂ Presents: Chemical Stoichiometry - an easy way
Meg Young	ACT ₂ Presents: What's the Matter?

Battleship from page 1

elements to indicate an aircraft carrier (5 elements), a battleship (4 elements), a submarine (3 elements), a destroyer (3 elements), and a PT boat (2 elements). Note: the number of ships can be increased which will create more "hits" and more fun!

- The first player calls a valence configuration for an element of his/

her choice. For example, carbon would be $2p^2$. The other player states the name of the element called (in order to verify understanding of the "code" between the players), and then says "hit" or "miss."

- The player stating the configuration marks the top periodic table to note shots taken, and the player being "shot at" marks hits and misses

on the bottom periodic table.

Play continues until all ships are "sunk."

Extensions: The method of stating configurations can vary. For example, Ge could be stated $4p^2$ or $4s^24p^2$. Iron could be stated $3d^6$ or $4s^23d^6$, etc...

Electron Configuration Battleship

*Please use this
picture and title
for the cover of
your Battleship
folders. It will
make the
game more fun!*

Katy Student Qualifies for USNCO Camp



Nicolas receives a plaque from Simon Bott of UH and the ACS-GHS.

Nicolas Ayllon, one of Amiee Modic's students at Katy High School in Katy, Texas, recently qualified for the U.S. National Chemistry Olympiad Study Camp. The Chemistry Olympiad is a competition designed to stimulate and promote achievement in high school chemistry; and

the Study Camp, which is held at the U.S. Air Force Academy, brings together twenty of the nation's highest achieving chemistry students to study chemistry and try for the opportunity to be one of four students to represent the U.S. at the International Chemistry Olympiad. In the first tier of competition, Nicolas and over 100 Houston area students took a local Chemistry Olympiad exam, sponsored by the Greater Houston Section of the American Chemical Society and the University of Houston. From those students, twelve

qualified for, and took the U.S. National Chemistry Olympiad exam. Around Texas and the U.S. other chemistry students did the same and the top 20 performers from across the nation were selected for the study camp. Nicolas is attending the study camp this month, vying for a chance to be one of the four students who will be chosen to represent the United States team at the 43rd International Chemistry Olympiad competition in Ankara, Turkey.

Ken Lyle—One of Our Greats!

Dr. Ken Lyle, ACT₂ member since the dawn of time, was recently promoted to the position of Lecturing Fellow at Duke University where he is the Outreach Coordinator. In addition, this year Ken was nominated for, and won, the Betsy Alden Service-Learning award at Duke. Ken's nominators cited "his commitment to his community partners, the impact of his students'

demonstrations in the community, and the way he seamlessly integrates these experiences into an intellectually stimulating course." For those of us who know and love Ken, this is a great tribute to his dedication to and love for science, particularly chemistry. For those members that have not yet had the Ken Lyle experience, your lucky day is coming soon. Next summer

Ken is one of the invited speakers to our Biennial Conference at UMHB. Among other things, he will be coordinating the Demos in the Dark event, which is not to be missed.



Ken at "Science Under the Stars"

Biennial Date and Location Set

The Associated Chemistry Teachers of Texas Biennial Conference will be held June 24-28, 2012 at the University of Mary Hardin Baylor. Jamie Flint, our President-Elect, has been working with Dr. Darrell Watson (regional director and professor at UMHB) to put together a great conference. For those of you who get ChemMatters magazine, you may recognize the

name Bob Becker. Bob has done the questions for the classroom for several years and he will be one of our invited speakers. Additionally, Ken Lyle, transplanted Texan currently at Duke, will be the other invited speaker and coordinating the Demos in the Dark. Jamie is currently planning to have four strands of workshops at the conference including: AP, technology, labs/

demos, and teaching strategies. Put on your thinking caps and be working on your idea for presenting! A full brochure about the conference will be available at CAST, but go ahead and save the date!



Start a MetroChemical Group

Are you interested in starting a metro area or regional group of chemistry teachers so you can keep in touch better? The ACT₂ board will provide you with start up money if you just apply! It's that simple. You can use the money for speakers, supplies, coffee, etc. The DFW area and the Houston area already have meetings several times each year. In Houston

there is a fall meeting, an early spring meeting and a late spring meeting (usually in conjunction with the ACS scholarship exam). Please contact Claudia Wallace of the DFW group (WallaceC@cfbisd.org) or Amiee Modic of the MHCTA in Houston (amodic@sbcglobal.net) if you have any questions.

See the application form in the section below.

Application for Area Chemistry Teachers Group Funding

In a state the size of Texas, one way we can lead chemistry education is to encourage teachers to meet and share in their geographic zones as well as at CAST and Biennial Conferences. Any group of chemistry teachers from a Regional or Metropolitan area that wants to have regular meetings for the exchange of ideas through workshop or discussion, or to have a guest speaker, may apply for \$200 seed money to put toward expenses. The application below should be completed and submitted online to ACT₂ for consideration by the board. Please submit to act2.tx@gmail.com and reference "area application" as the topic.

Name of Group Applying:

Name and Contact information for the person that will be the main contact person for your group and receiver of funds:

Name:

Address:

Email:

Phone:

What will your group do to ensure the money is handled fairly?

How do you plan to use the money?

Mark Your Calendars!

TSELA Meeting—June 17, 2011

CAST—November 17-19, 2011

ChemEd 2011—July 24-28, 2011

ACT2 Biennial—June 24-28, 2012

Next Two Newsletter Dates

September 15, 2011 — Articles Due

January 10, 2012 — Articles Due

September 23, 2011 — Publication

January 17, 2012 — Publication



ACT₂ Membership Form

Associated Chemistry Teachers of Texas



Date: _____

Check the box that applies to you: ☐ New Membership ☐ Renew Membership

Name: _____

Email Address: _____

Please note that most communication goes out through bulk email. You may wish to provide a personal email rather than school email so it doesn't get blocked.

School District: _____ School Name: _____

Are you a current STAT member? ☐ Yes ☐ No

Mailing Address : _____

City: _____ State: _____ Zip Code: _____

Membership Plan: ☐ One year membership (\$10.00)(check the box that applies) ☐ Two year membership (\$20.00)Make checks payable to ACT₂

Send payment to: Meagan Gilbert
1405 Stone Canyon Way
Lewisville TX 75067

For Office Use only:

Total Amount Paid: _____

Method of Payment: _____

Renew Date: _____



Associated Chemistry Teachers of Texas

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The Associated Chemistry Teachers of Texas, ACT₂, is a statewide 501(c)(3) organization of elementary through college teachers and supervisors and those interested in science education who are dedicated to maintaining the highest levels of chemistry education in Texas schools. The major objectives of ACT₂ are to recognize and support those interested in teaching chemistry on all levels in a learner-centered environment, to provide common ground for the exchange of ideas, and to improve the quality of chemistry teaching and chemical education throughout the state of Texas. The fulfillment of these objectives is in part accomplished through annual state meetings and biennial conferences that address the needs of chemistry teachers and the content-specific training necessary to utilize the latest advancements in chemical education. Active membership consists of all parties interested in the teaching of chemistry and those who shall assent to the constitution and pay the regular dues. The Association is an affiliate of the Science Teachers Association of Texas, the largest organization in the state committed to promoting excellence and innovation in science teaching and learning.

Chem-is-try!

<http://act2network.grouplify.com/login>
<http://www.statweb.org/ACT2/>

ChemEd 2011 in Kalamazoo, MI

JUST A REMINDER!

Early registration for Chem Ed ends on June 15th. After that, conference registration costs go from \$280 to \$350, so register before the deadline to save money!

The entire conference schedule will be on the web by Friday, June 3rd. While some rooms and times are subject to change, this schedule will give you a better idea of how to plan your week, and of the wonderful ideas you can gain and activities you can do while in Kalamazoo.

Remember, this conference has been planned by twenty-two of your colleagues in high school chemistry teaching. We've put together a conference that we think you will want to attend.

So register soon at
<http://www.wmich.edu/chemed/>

We look forward to seeing you in Kalamazoo this summer!

